



DEPARTMENT OF HEALTH  
AND ENVIRONMENT

Division of Environment

Kathleen Sebelius, Governor  
Roderick L. Bremby, Secretary

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November 7, 2008

RCAP RECEIVED

NOV 10 2008

Mr. Emmet F. Curtis, Project Manager/Risk Management  
MACTEC Engineering and Consulting, Inc.  
3200 Town Point Drive NW, Suite 100  
Kennesaw, Georgia 30144

**RE: Kansas Department of Health and Environment (KDHE), Technical Review Comments, "Completion of Comprehensive Investigation (CI)", Work Plan, Former Olin Water Services Facility, Kansas City, Kansas, Consent Order No. 97-E-0207 (and Agreed Order Dismissing Appeal – OAH No. 08HE0205 HAZW)**

Dear Mr. Curtis;

KDHE has completed technical review consistent with KDHE guidance and the above referenced legal instruments and has the following technical review comments. The Work Plan (WP) was prepared on behalf of Olin Corporation by MACTEC Engineering and Consulting, Inc., and was received by KDHE on September 30, 2008.

KDHE commends Olin for developing this work plan consistent with the original consent order (December 4, 1997) and Agreed Order Dismissing Appeal (July 12, 2008). KDHE technical, review comments are as follows:

1. In order to complete the CI with the highest level of confidence, KDHE recommends that Olin collect soil samples in and around the former soil sample locations SB-G2 and SB-C5 (adjacent to above-ground storage tanks.) These locations have shown in previous file documentation high level detections of contaminants of concern (CI Work Plan, March 1999, et. al.)
2. On page 2-2, paragraph 1, Olin identifies the planned soil-sampling intervals. KDHE notes after review of historic investigation documentation that there are contaminant concentrations (field detections) in and around the proposed sampling locations at depths greater than 4 feet (i.e., sampling depths specified in the September 2008 WP.) Therefore, KDHE requests that Olin reassess the sampling intervals noted for the proposed sample locations: SB-11, SB-12, SB-13 and SB-14 and consider mimicking soil sampling intervals from previous sampling efforts (e.g., 0-2, 9-11, 16-20 and 20-25 feet below ground surface – plus or minus.) Please edit table 1 (notes section) as needed consistent with this requirement.

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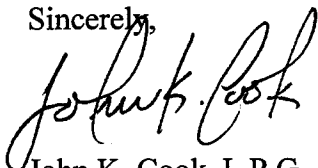
3. On the bottom of page 2-2, last paragraph, the WP text states, "Soil samples will be **homogenized** [emphasis added] in pre-cleaned stainless steel ..." The proper method for soil sample collection (and analysis) for volatile organic compounds (VOCs) in soil is SW-846 Method 5035. Method 5035 more accurately identifies the types and concentrations of VOCs in soils than the method identified in the WP, which is highly susceptible to errors due to evaporative losses of volatiles and microbial degradation prior to sample analysis.

Please consult this method and edit the work plan to incorporate this method for all VOC soil sampling and analyses.

4. Please ensure that all ground water sampling procedures, including monitoring well purging are consistent with state and federal guidance including, but not limited to the following: Groundwater Sampling Guidelines for Superfund and RCRA Project Managers, Ground Water Issues paper, Yeskis, Douglas; Zavala, Bernard, May 2002, EPA-542-5-02-001 (purging requirements) and Environmental Investigations, Standard Operating Policy Manual, EPA, Region IV, November 2001. It is critically important to use the "straw" method for ground water sample collection when using a peristaltic pump.

KDHE expects complete written responses to these technical review comments within 45 calendar days of receipt of this letter. You of course may contact me at (785) 296-8986 or through my electronic mail address [johncook@kdhe.state.ks.us](mailto:johncook@kdhe.state.ks.us) should you have questions or comments.

Sincerely,



John K. Cook, L.P.G.  
Professional Geologist  
Restoration and Long-Term Stewardship Unit/ Remedial Section  
Bureau of Environmental Remediation

JKC/mm

C: Rick Bean > Deanna Ross > J.K. Cook > File, C4-105-03025 1.0  
Paul Marx, KDHE Legal  
Garland Hilliard, Olin Corporation  
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